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## EG&G ROCKY FLATS

**EG&G ROCKY FLATS INC**

EG&G ROCKY FLATS INC  
ROCKY FLATS PLANT P O BOX 464 GOLDEN COLORADO 80402-0464 (303) 966-7000

**October 14 1992**

92 RF 11975

**Robert M Nelson Jr**  
**Manager**  
**DOE RFO**

Attn S R Grace

**DATA ANALYSIS FOR THE BASELINE RISK ASSESSMENT AT OPERABLE UNIT NUMBER 1 (OU1) - RLB 0655 92**

Ref J K Hartman (10318) to J M Kersh Data Analysis for the Baseline Risk Assessment (BRA) at RFP Operable Unit No 1 September 14 1992

We are in receipt of the referenced letter to EG&G Rocky Flats Inc (EG&G) regarding data analysis for the BRA at OU1. EG&G is complying with DOE/RFO's request and has redirected the BRA. We want to inform DOE/RFO that their direction will tend to produce an overly conservative BRA in which the human health risks will be overstated. This type of conservatism may result in unwarranted remediation costs. In addition, this approach will be more costly than the method EG&G had intended to use.

This direction constitutes a change in our technical baseline assumption that may increase our BRA costs by 25 to 30 percent. While the cost impact to OU1 is relatively minor (i.e., an estimated \$50,000 to reconfigure late in the production cycle), it would have been more costly if introduced earlier in the sequence. Our greater concern, as discussed below, stems from the implications of BRAs in future OUs. We will be evaluating the cost and schedule impacts to future OUs based on an analysis of our OU1 experience. This evaluation will include the effects of implementing this new direction throughout the entire risk assessment process.

EG&G wants to caution DOE/RFO with respect to their approach to characterization of the future use residential exposure scenario. While it is true that a hypothetical residence is stationary and exposure arising from that location is fixed, the location of the supposed residence is a random variable. Consequently, exposure resulting from a postulated residence can also be treated as a random rather than fixed variable. Exposure integrated across the OU, as EG&G had intended, would account for all potential points of exposure including those arising from the source. EG&G presented data aggregation methods for risk assessment (including the method originally used for OU1) with an analysis of their presence to DOE, Environmental Protection Agency, and the Colorado Department of Health in a Risk Assessment Technical Working Group (RATWG) meeting on December 11, 1991. At that time, DOE did not express concern for EG&G risk assessment methods. EG&G had

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## CLASSIFICATION

NI		
CLASSIFIED		
CONFIDENTIAL		
SECRET		

HORIZONTAL CLASSIFICATION  
SIGNATURE  
not applicable  
for classification  
on office  
exemption

REPLY TO RFP CC NO

1840-RF 92

ION ITEM STATUS  
OF N ☐ CLOS'D

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APPROVAL SIGNATURE  
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## ADMIN RECORD

A-0001-000541

REVIEWED FOR CLASSIFICATION/UCNI  
BY G T Ostdiek 820  
DATE 7-1-93

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intended to address these methods through a quantitative uncertainty analysis. This method would have allowed the risk manager to observe the higher risk (including source areas) appropriately placed within the bounds of a statistically derived range of risk estimates.

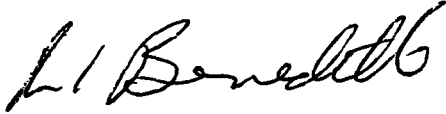
EG&G is concerned that the method we have been directed to use will result in an individual hazardous substance site (IHSS) by IHSS analysis of risk in other OUs. We believe that this technique will obscure the point that RFP consists of a very large area with distinct and generally localized areas of contamination. The method that EG&G has been directed to use will over emphasize the localized areas of contamination and downplay the risk contributed by unimpacted or relatively uncontaminated portions of each OU. As mentioned previously, an IHSS by IHSS risk assessment will be more costly to produce and will stress the production schedule. Examples of where the IHSS by IHSS approach will require more effort than currently envisioned include:

- 1 ) Identifying Contaminants of Concern (COC) IHSS by IHSS will require working the multiple step flow process for each IHSS. The statistical comparisons for a multiple IHSS OU (i.e. OU5 or 6) would more than triple in cost compared to applying the flow process to an aggregated data set.
- 2 ) Evaluating the data and quantifying individual IHSS pathway exposure models as opposed to more general compositing over logical spatial and hydrologic domains could double the exposure assessment cost.
- 3 ) Developing the uncertainty analysis and presentation of the risk characterization on an IHSS by IHSS basis could more than double the cost of these elements when compared to integrating all IHSSs into a composite format.

In addition, an IHSS by IHSS approach will require more schedule time to perform than an integrated approach. This issue could become exacerbated by our laboratory reporting and data availability operation. For example, it is possible that the analysis for several or all of the IGSSs could be pending upon receipt of laboratory data. If all outstanding data were received late in the production schedule, the risk assessor would be burdened with multiple revisions (i.e. IHSS by IHSS) and completions rather than one master revision and completion.

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If you have questions or comments regarding this letter please contact Dennis Smith of  
Remediation Project Management at extension 8636

A handwritten signature in black ink, appearing to read "R L Benedetti". The signature is fluid and cursive, with the first name "R" and last name "Benedetti" clearly distinguishable.

R L Benedetti  
Associate General Manager (Acting)  
Environmental Restoration Management  
EG&G Rocky Flats Inc

DMS dmf

Orig and 1 cc R M Nelson Jr

cc  
F R Lockhart DOE RFO